

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A device for the three-dimensional reconstruction of a moving object in a body volume, comprising a memory ~~which contains~~ for storing a series of two-dimensional projection photographs ($A_1, A_2, \dots, A_n, \dots, A_N$) of the body volume from different directions, ~~as well as~~ and a data processing unit ~~which is~~ coupled to the memory ~~and which is set up to execute~~ for executing the following steps:
- a) ~~Segmentation of the~~ segmenting a projection image ($Pr_n(Q)$) of at least one feature point (Q) of the object or its surroundings in each of the projection photographs (A_n);
 - b) ~~Specification of~~ specifying randomly a spatial reference position (Q_0) for ~~each the~~ feature point (Q) on which subsequently all the projection photographs are to be aligned;
 - c) ~~Calculation of~~ calculating transformations (Σ_n, σ_n) of the object space and of the projection photographs, wherein (A_n), ~~after the use of which~~ the projection of the transformed reference position coincides with the a respective transformed image of the feature point; and
 - d) ~~Three-dimensional reconstruction of~~ reconstructing the object three-dimensionally from the stored two-dimensional projection photographs (A_n) ~~with the aid of~~ using the calculated transformations (Σ_n, σ_n).
2. (Currently Amended) ~~Device~~ The device as claimed in claim 1, ~~characterized in that~~ wherein the spatial reference position (Q_0) of a feature point (Q) is ~~reconstructed~~ randomly specified in step b) from two projection photographs that originate from a similar state of the body volume, ~~in particular from a heartbeat phase of the same type.~~

3. (Currently Amended) ~~Device~~ The device as claimed in claim 1, ~~characterized in that wherein~~ the transformation (Σ_n) of the object space or the transformation (σ_n) of the projection photographs is the same image.

4. (Canceled)

5. (Currently Amended) ~~Device~~ The device as claimed in claim 1, ~~characterized in that wherein~~ the transformations (σ_n , Σ_n , Σ_{p_m}) comprise one of a translation, a rotation, a dilation, and ~~and/or~~ an affine transformation.

6. (Currently Amended) ~~Device~~ The device as claimed in claim 1, ~~characterized in that it includes~~ further comprising an input unit for interactive segmentation in step a).

7. (Currently Amended) ~~Device~~ The device as claimed in claim 1, ~~characterized in that it includes~~ further comprising an image-producing device (1) for producing the series of two-dimensional projection photographs ($A_1, A_2, \dots, A_n, \dots, A_N$) of the body volume. ~~volume, preferably an X-ray apparatus (1) and/or an NMR device.~~

8. (Currently Amended) ~~Device~~ The device as claimed in claim 1, ~~characterized in that it includes~~ further comprising a sensor device (2) for recording a parameter (E_n) that characterizes a cyclical self-movement of the body volume in parallel with the production of the projection photographs, ~~wherein the sensor device preferably comprises an electrocardiograph device (2) and/or a respiration sensor.~~

9. (Currently Amended) ~~Method~~ A method for the three-dimensional reconstruction of a moving object in a body volume based on a quantity of data which contains a series of two-dimensional projection photographs ($A_1, A_2, \dots, A_n, \dots, A_N$) of the body volume from different directions, comprising the steps of:

- a) ~~Segmentation of the~~ segmenting a projection image ($Pr_n(Q)$) of at least one feature point (Q) of the object or its surroundings in each of the projection photographs (A_n);
- b) ~~Specification of~~ specifying randomly a spatial reference position (Q_0) for ~~each~~ feature point (Q) on which subsequently all the projection photographs are to be aligned;
- c) ~~Calculation of~~ calculating transformations (Σ_n, σ_n) of the object space and of the projection photographs, wherein (A_n), ~~after the use of which~~ the projection of the transformed reference position coincides with the a transformed image of the feature point ~~each time~~; and
- d) ~~Three-dimensional reconstruction of~~ reconstructing the object three-dimensionally from the series of two-dimensional projection photographs (A_n) ~~with the aid of~~ using the calculated transformations (Σ_n, σ_n).

10. (Canceled)

11. (New) The device as claimed in claim 2, further wherein the two projection photographs that originate from the similar state of the body volume comprise two projection photographs that originate from a heartbeat phase of the same type.

12. (New) The device as claimed in claim 7, further wherein the image-producing device comprises one of (i) an X-ray apparatus, (ii) an NMR device, and (iii) both an X-ray apparatus and an NMR device.

13. (New) The device as claimed in claim 8, further wherein the sensor device comprises one of (i) an electrocardiograph device, (ii) a respiration sensor, and (iii) both an electrocardiograph device and a respiration sensor.